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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,507	07/08/2003	Mitchell Alsup	5500-79600	9204

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EXAMINER

NGUYEN, HIEP T

ART UNIT	PAPER NUMBER
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2187

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,507

Applicant(s)

ALSUP, MITCHELL

Examiner

Hiep T. Nguyen

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 15, 26, 41 and 42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/19/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-46 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 15, 26, 41 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Pickett et al., US 2004/0143721 [hereafter, Pickett].

- a. As per claim 1: Pickett teaches a microprocessor [figure 1A, not shown; see page 17, paragraph 154], comprising:

- i. A trace cache [160, figure 10] comprising a plurality of trace cache entries [170; see paragraph 155 on page 17], wherein each trace cache entry is configured to store a plurality of operations and a respective plurality of liveness indications [i.e., flow control information], wherein the plurality of operation are generated by at least partially decoding a plurality of instructions [see paragraph 154 on page 17];
- ii. A trace generator [not shown; however, the flow control information must have been generated by a generator] configured to generate the respective plurality of liveness indications for the plurality of operations in each trace cache entry, wherein each liveness indication identifies whether execution of its respective operation depends on a branch operation stored within that trace entry [see again paragraph 155 on page 17].

Art Unit: 2187

- b. As per claim 15: the claimed method basically encompasses the corresponding steps that are carried out by the corresponding elements in claim 1. Accordingly, claim 15 is rejected for the same reason as set forth for claim 1.
- c. As per claim 26: the claimed computer system basically encompasses a microprocessor as in claim 1 and a system memory configured to store a plurality of instructions which are partially decoded to form operations stored in each trace cache entry. As mentioned above, Pickett teaches such microprocessor. Pickett further teaches a system memory (200) for storing instructions [see paragraph 37, on page 3]. Accordingly, Pickett also anticipate the claimed computer system in claim 26.
- d. As per claim 41: the claimed device comprises basically the equivalent means for carrying out the same operation as that of corresponding elements in claim 1. Accordingly, claim 41 is also rejected for the same reason as set forth for claim 1.
- e. As per claim 42: the claimed microprocessor basically encompass the same trace cache as that of claim 1 and a dispatcher unit configured to receive a trace of operations stored in one of the plurality of trace cache entries from the trace cache, wherein the dispatch unit is configured to handle each operation in he trace dependent on the respective liveness indication associated with that operation. Pickett also teach such dispatch unit [see page 17, the end of paragraph 154]. Accordingly, Pickett also anticipated the claimed microprocessor.

Allowable Subject Matter


4. Claims 2-3, 9, 16, 22, 27-28, 34, 40, and 43-46 are objected to as being dependent upon a rejected base claim, but would be allowable over the prior art of record if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The claims would be allowable over the prior art of record because none of the prior art of record teaches or fairly suggests the further claimed limitation in each of the claims. Consequently, claims 4-8, 10-14, 16-21, 23-25, 29-33, 35-39 would also be allowable over the prior art of record.

Art Unit: 2187

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep T. Nguyen whose telephone number is (571) 272-4197. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Hiep T. Nguyen
Primary Examiner
Art Unit 2187

HTN